

The Sisyrrinchium of the Bahamas

Daniel B. Ward

Department of Botany, Agricultural Experiment Station
University of Florida, Gainesville, Fla.

William T. Gillis

Department of Biology, Hope College
Holland, Michigan

In 1920 N. L. Britton and C. F. Millspaugh published their *Bahama Flora*, which remains to this date the standard floristic work on the Bahaman archipelago. Within recent years two major studies of the flora of the Bahamas have been undertaken, by Donovan S. Correll, and by the junior author, and piece-by piece the problems, inconsistencies, and questions of Britton and Millspaugh's pioneer work are being resolved. The present note is an effort to extend our understanding one step further, by examination of the single species of *Sisyrrinchium* (Iridaceae) reported for the Bahama Islands by Britton & Millspaugh.

A second species, *Sisyrrinchium exile* Bicknell, has been reported from the southern Bahama island of Inagua by Howard & Dunbar (1964). This species and its close allies have been examined by O'Connell (1955) and the United States representatives discussed by Shoiners (1962). Their annual habit, partially free filaments, and abruptly pointed spathe valves, however, mark them as members of a predominately South American group of species that is largely adventive in North America. Howard & Dunbar recorded *S. exile* as a waif on Inagua, and their collection of this plant is incidental to the resolution of the identity of the one native Bahaman species.

Prior to the report of Howard & Dunbar the genus *Sisyrrinchium* (and indeed the Iridaceae) was included in the Bahaman flora only on the basis of a single gathering known to Britton and on two recent collections. In April, 1905, Lewis J. K. Brace obtained on Grand Bahama a *Sisyrrinchium* that he did not name, but that he presented to Britton who sent it for comment to Eugene P. Bicknell. Bicknell, professionally a lawyer but avocationally a skilled botanist who had given much attention to *Sisyrrinchium* and had published a series of carefully wrought papers on the genus, chose not to name Brace's collection. Britton nevertheless assigned the collection to *S. miamiense* Bicknell, a plant whose type had come from Miami, Florida, and included this species in the *Bahama Flora*.

To our knowledge, not until 1969 was this *Sisyrrinchium* again collected in the Bahamas. In April of that year the junior

author made a collection of the genus near Freeport, Grand Bahama, and in July, 1974, D. S. Correll obtained similar material on Great Abaco. These three collections, with field data and place of deposit, are as follows:

- L. J. K. *Brace* 3642, 26 April 1905. Great [!] Bahama, near West End. [paper slip in packet of NY specimen: "Fl. lilac blue. 6 - 8 parted. Perianth - bases of divisions orange tinted yellow. St. yellow united into a tube. Herbaceous. Margins of swamp waterhole in moist places. 6 mi. E. of [illegible]. 26-4. 05."] F, NY.
- W. T. *Gillis* 7797, 1 April 1969. Grand Bahama Island, vicinity of Freeport, south of airport. Pine woods with no bracken. Flowers blue. FTG, MO.
- D. S. *Correll* 42793, 10 July 1974. Great Abaco: in raw rocky soil in grassy-brushy edge of pineyard along Great Abaco Highway near where it is intersected by road to Murphy Town [3 mi. n.w. of Marsh Harbour]. FTG.

The ten plants borne on the five sheets cited above are all closely similar. They are caespitose, with narrow leaves darkening in drying and persisting as dense brown fibres at the base of the plant. The stems are stiffly erect, and branch once or twice in succession with the uppermost cauline leaf subtending 2 - 4 peduncles. The capsules are small, black, and firm-walled. Two well-formed fruiting specimens from Great Abaco (*Correll* 42793, FTG) are illustrated in the accompanying photograph (Fig. 1). Such plants would be wholly appropriate if collected along the eastern coast of North America, from Massachusetts south to North Carolina, where they would be indistinguishable from the plant there known as *Sisyrinchium arenicola* Bicknell.

The plant known as *S. miamiense* Bicknell is not grossly dissimilar. Its type (*C. L. Pollard & G. N. Collins* 264, Miami, Dade Co., Fla. [NY]), well described by Bicknell (1899a), is representative of a population of slender dark-drying plants confined largely to South Florida. *Sisyrinchium miamiense*, however, is consistently more delicate, and its leaves persist only sparingly in the form of basal fibres. The Bahama collections do not correspond well to this South Florida population. It is not surprising to find that Bicknell, in a letter to Britton [NY], remarked with reference to *Brace* 3642, "Your Bahama plant, as my recollection carries it, does not fit very well with *Miamiense*. Is it not a stiffer plant with more wiry twisted stem, plumper spathes, more numerous crowded flowers and thicker-walled capsules. *Miamiense* has some loose fibres about the base, as any species might have, but no distinct fibrous coating."



Fig. 1. Sisyrinchium arenicola Bicknell. D. S. Correll 42793, Fairchild Tropical Garden. Great Abaco, Bahama Islands.

Further support for the identification of the Bahama *Sisyrinchium* with a species of the northeast seacoast, rather than South Florida, is given by the distribution of the three known stations for this plant in the Bahama Islands. The two stations on Grand Bahama and the one station on Great Abaco are at the northernmost end of the Bahaman archipelago, in the direction of the range of *S. arenicola*, while the large island of Andros and smaller islands such as Bimini, New Providence, and the Berry Islands, closer to the range of *S. miamiense* and with extensive areas of apparently suitable habitat, are not known to contain the genus. The presence of this *Sisyrinchium* on these two islands is perhaps not so much evidence of repeated and recent introduction from the mainland as it is of a relic presence in the area, for Abaco and Grand Bahama rest on the Little Bahama Bank which was a single island during lowered sea levels of the Pleistocene glacial stages.

But even with acceptance that the *Sisyrinchium* of the Bahamas is identical to the plant known as *S. arenicola* Bicknell, a degree of uncertainty remains that this name is correct for the coastal plant of the northeastern United States. As has been pointed out previously (Ward, 1968), this name may not be the earliest one available if certain southeastern plants are considered conspecific. Four months before Bicknell published *S. arenicola* (1899b), applying the name to a species ranging from Massachusetts to New Jersey, he had published (1899a) a detailed enumeration of sixteen new species in the Southeast, including several that are perhaps not separable from *S. arenicola*. If one of these earlier names should be considered conspecific with *S. arenicola*, then the earlier name would take precedence. Yet, pending development of satisfactory evidence that the northeastern plant intergrades with one of the species bearing an earlier name, the dark-drying fibrous-based plant of the Massachusetts to North Carolina coast, and now extended to the northern Bahama Islands, can best be known under the name *Sisyrinchium arenicola* Bicknell.

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